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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE:

SUBJECT: Request for Emergency Action at Summit National Site, Deerfield, Ohio.

FROM: Grace Pinzon
Remedial Project Manager

TO: Robert Bowden, Chief
Emergency Response Section

Thru: Gregory A. Vanderlaan, Chief
Site Management Section

The information outlined below is being submitted to assist you in the preparation of an Action Memorandum for the subject action. We believe that an emergency removal action is necessary.

Background

A. Site Description

Summit National Site is located in Deerfield Township of Portage County, Ohio. The property is approximately 11.5 acres in size and is bordered on the north by U.S. Route 224 and on the west by Ohio Route 225. The south portion of the site is bordered by a cement plant and the east portion is bordered by residential property. The site is enclosed by a chain link fence and kept locked at all times. Approximately one mile to the southeast of the site lies the Berlin Reservoir which supplies drinking water to the city of Youngstown, Ohio. The surrounding area of Summit National consists of farmlands, light industry and two landfills.

The Weibush Solid Municipal Landfill is located southwest of Summit National and is presently operating. The Jones Landfill is located south of the cement plant and has been shut down for several months.

Summit National Site was formerly a coal strip mine and contained a coal wash pond and coal stock pile. There are two ponds on site which discharge eastward to a drainage ditch located off-site. Water is then discharged in a southward direction to an impoundment located approximately 300 yards downstream. Water is held within the impoundment until it percolates through the embankment to another drainage creek which leads to the Berlin Reservoir.

Other features on site include an abandoned incinerator and two abandoned buildings in the southeast corner, a scale house in the northwest corner and two dilapidated buildings in the northeast corner. (See Figure 1 Site Map).

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B. Site History

The facility was called Summit National Liquid Services. In 1973, Ohio Environmental Protection Agency issued a permit to install a liquid incinerator with a capacity of 18,000 gallons per month of liquid waste. In 1974, Ohio EPA issued an operating permit. The facility received a wide variety of chemical waste usually contained in 55 gallon drums. Many wastes were mixed with flammable liquids and incinerated. Some wastes were buried, dumped, or leaked on site. In 1976, a drainage ditch which bisected the property was diverted to the southern boundary.

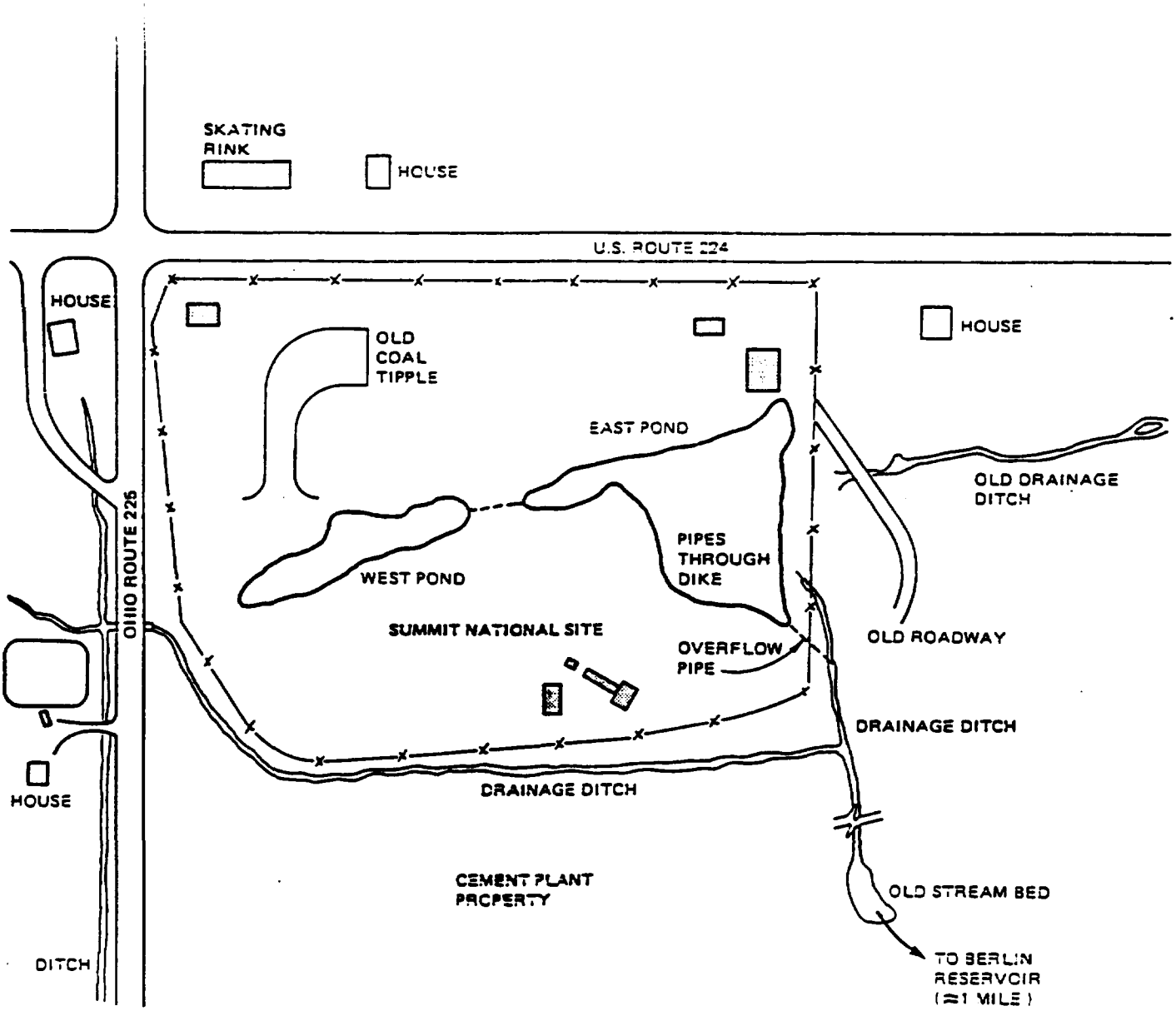
In 1975, Ohio EPA received a complaint of a discharge. In 1976, Ohio EPA requested that the U.S. Environmental Protection Agency (U.S.EPA) investigate Summit National Site. Evidence of numerous leaks and spills were found. In 1978, Ohio EPA issued an order demanding Summit National Site to cease operations. Ohio EPA conducted surface water sampling in 1978 and sediment sampling in 1979. The results indicated contamination mainly PCBs in sediments, and water quality violations including: ammonia, TE, cyanide, lead, phenols, pH and zinc.

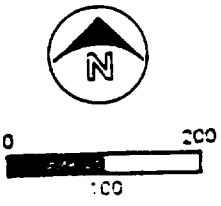
In 1980, U.S. EPA funded a surface clean-up consisting of the removal of 7,500 gallons of toxic chemicals. In November 1981, eight potentially responsible parties provided [redacted] for surface clean-up activities which included the removal of drums, tanks, surface debris, and a small amount of contaminated soil. Surface clean-up was concluded in June 1982.

In 1983, Summit National scored 57.28 on the National Priorities List. Presently the Remedial Investigation report is being developed. The final RI report is scheduled for April 1987.

History of the Incident

On December 9, 1986, the REM IV Contractors (SRW Associates) were at Summit National Site preparing to initiate the treatment of approximately 5,000 gallons of waste water which was derived from the Remedial Investigation (RI) activity. A site reconnaissance was conducted to ensure that the water treated with carbon adsorption would not create a discharge off-site, as required by Ohio EPA. During the reconnaissance, it was observed that the east portion of the site was flooded due to the high pool elevation of the east pond. The embankment eroded, thus allowing the water to discharge to the east through residential property and then joining the natural drainage pattern to the east.





LEGEND

ABANDONED STRUCTURES

FIGURE 1 - SITE MAP

SUMMIT NATIONAL SITE, OHIO

There are three gate valves apparently designed to control pond elevation. However, these valves were closed, causing the pond to overflow. If the valves were opened, the water would discharge to the impoundment located approximately 300 yards downstream.

On December 10, 1986, Mike Strimbu, Western Response Unit Chief, made arrangements for Dave Hartman from the Technical Assistance Team (TAT), to conduct a site visit at Summit National. Dave Hartman received a copy of the analytical data from the surface water and sediment sampling which was conducted in September 1986. (Attachment No. 1) Based on the analytical data and the situation, Dave Hartman suggested we open the valves and allow the water to discharge to the impoundment rather then discharge to private property. Ohio EPA was consulted prior to any action. Due to the emergency situation, Ohio EPA agreed to allow the pond to discharge towards the impoundment.

On Thursday morning, December 11, 1986, instructions were given to SRW to open the valves and allow pond elevation to drop 18 inches. Difficulties were encountered when opening the valves. The valves were frozen, then finally opened only to discover that the pipe lines were either frozen or plugged with sediment. To lower the pond elevation, a siphon system was installed at approximately 15 inches below the water level of the pond. Initially a flow rate of 10 gallons per minute was established. On Friday morning, December 12, the siphon set-up was checked again with a flow rate of 10 gpm still in effect. Presently the water is frozen and most likely will remain in the same condition during the winter season.

Pathways of Release

Initially the water was flowing over the east portion of the site moving off-site towards private property, approximately at an elevation of 1089. (Refer to Attachment No. 2) A series of gullies align the east perimeter of the site to a distance of approximately 100 feet from building #2. The water level in building #2 is very high. The average flow rate in the gullies ranged between 10 and 20 gallons per minute.

The northeast portion of the site has gullies that lead very close to U.S. Route 224. The average flow rate ranged between 5 and 10 gallons per minute.

The three valves are located southeast of the pond. If these valves were open, the water would flow south towards the impoundment.

Relevant Issues

Thirteen areas of suspected buried drums were identified during the RI activity. Three of the suspected areas are located in the northeast portion of the site which falls within the flooded area. Other zones of suspected buried drums are located immediately south of the pond. (See Figure 2-Buried Drum Locations) If the area continues to flood, the increasing hydraulic pressure and low cohesion of the soil will facilitate the displacement of the drums and their contents. In addition, the water will percolate through the soil and eventually come in contact with the drums, thus contaminating the groundwater.

Another relevant matter concerns one of the two dilapidated buildings in the northeast corner. The building was apparently used as a storage place for chemical wastes. There is some debris in the building which is partially submerged in water at this time. If the area continues to flood, the building may collapse. If so, this will complicate site conditions and any intended drum removal action. In my opinion, it is necessary to prevent water from flooding this area before Spring 1987 arrives. This may be achieved by constructing a berm and directing the water to flow south as previously intended.

NPL Status

Summit National Site was proposed on October 23, 1981 and became final with a score of 57.78 on September 8, 1983. Remedial Action is tentatively scheduled for the fourth quarter of FY 1989. The project currently is in the RI phase is scheduled to be final in April 1987.

Quantity and Type of Hazardous Substances

In September 1986, field sampling was conducted at Summit National Site. Sampling included surface water, sediment, soil, groundwater and residential water. The samples were analyzed by the Contract Lab Program (CLP) for the priority pollutants listed under the Hazardous Substances List. Sampling techniques followed quality control procedures and all data has been quality reviewed. The data indicates high contamination in the soil matrix, mainly the semi-volatile fraction. Aroclor 1248 was present in the range of 4000-21000 ppb. The results show a high inorganic fraction which in part is due to the natural soil characteristics of the area.

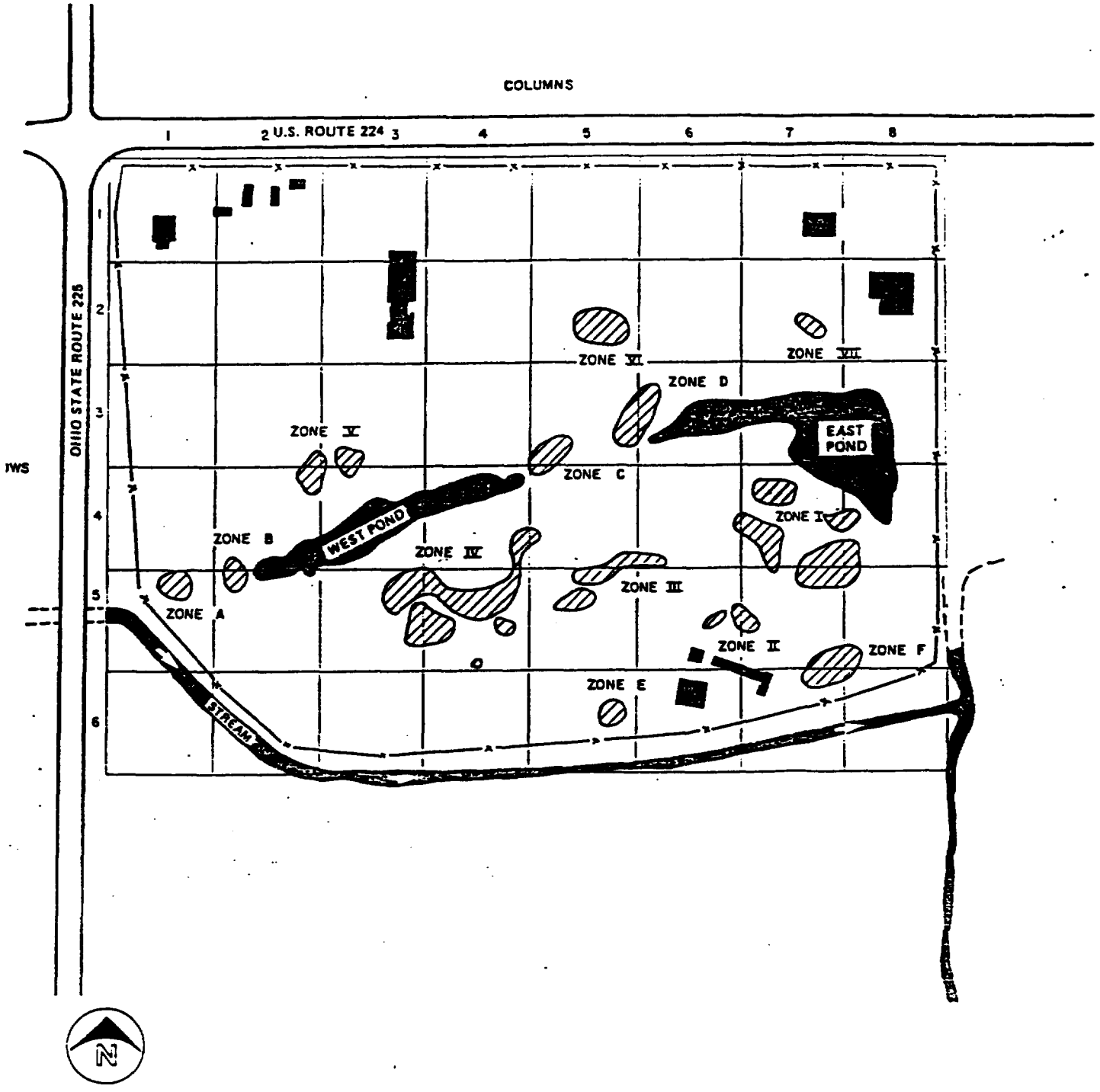


FIGURE 2 - POTENTIAL DRUM BURIAL LOCATIONS

SUMMIT NATIONAL SITE, OHIO

The groundwater results indicate low contamination in the organic fraction which is contrary to the inorganic fraction. Sample location number 2B85 located in east pond, indicates high contamination in the volatile, semi-volatile, and, inorganic fraction. Attachment No. 1 includes a summary of the September 1986 analytical data obtained from Summit National.

Non-Federal Response

Summit National Site is a federal lead and has funding for an RI/FS. Ohio EPA has provided [redacted] for the completion of the RI/FS which constitutes part of their state match. Ohio EPA has strongly suggested that U.S. EPA undertake some type of containment measure at Summit National. Ohio EPA is against any discharge of untreated water to off-site property. If a berm is constructed, the storage capacity of the pond would increase. However, the design must include a relief system that would allow the discharge to be treated. The discharge would most likely lead to the impoundment downstream.

Private Party Response

A preliminary party search identifies 69 potentially responsible parties. The search will not be finalized until March 1987. Negotiations for the RI/FS were unsuccessful. The RD/RA will be negotiated as soon as the FS is finalized.

Actions to Date

A siphon system was installed at approximately 15 inches from the crest of the embankment on December 11, 1986. A flow rate of 10 gallons per minute was established. The East pond is presently frozen and will most likely remain in the same condition during the winter season. This action is a temporary measure until a response action is implemented. Expenses incurred during this temporary response measure were taken out of the RI/FS budget designated for the task "Disposal of RI Derived Wastes". An accurate figure will be provided at a later date, however, costs incurred were under [redacted].

Threats to Public Health, Welfare, or Environment

Summit National Site was graded to facilitate surface runoff flow into the ponds. A metal culvert connects the two ponds, allowing the west pond to discharge into the east pond. The east pond also

receives the discharge of a French Drain which was installed around the perimeter of the facility. The French drain which was part of Ohio EPA's stabilization action. Three submerged overflow pipes were designed to allow the east pond to discharge into the drainage ditch which flows southeast to the impoundment. The valves [illegible] pipes are not functioning, thus flooding the east portion of the site.

If the water continues to flood the east portion of the site, the water will carry contaminants off-site in the direction of the residential property, U.S. Route 224, and eventually join the drainage pattern which flows eastward. The extent of contamination as well as surface clean-up costs would increase.

There is also the potential of groundwater contamination. The increased pressure of standing water may displace drums and facilitate the transport of contaminants into the groundwater. There are residents within 500 feet of the site which use the aquifer as a drinking water supply. The most recent analytical results are included in Attachment No. 1.

The analytical results for residential water show no contamination in the organic fraction. In the inorganic fraction, parameters such as iron, manganese, sulfate, and total dissolved solids exceed the Secondary Drinking Water Standards set by Ohio EPA. The present water quality does not pose a threat to human consumption. However, the water quality is threatened if the flooded area transports the contaminants of the soil or drum contents into the groundwater. (Reference Soil Analytical results in Attachment No. 1)

Enforcement

A preliminary PRP search identifies 69 potentially responsible parties. The party search is in the process of confirming the current list of 69 and identifying new PRPs. The search will be finalized in March, 1987. A notice letter will be sent to the PRPs on the date of the final FS. The order will request the PRPs to conduct a Remedial Design/Remedial Action (RD/RA).

The current situation has been presented to Dan Bicknell, who is the enforcement counterpart for Summit National. The legal procedures require that U.S. EPA request the PRPs to conduct a response action. The mechanism allows the PRPs 3 days to agree to an administrative Order [illegible] to Section 106 of the CERCLA Act of 1980. If PRPs accept the order within five days, they must submit a workplan including a Health and Safety Plan and a Sampling Plan.

Proposed Action

The embankment of the east pond should be restored and elevated to allow additional storage capacity. If the valves and pipes are not operable, then a relief system should be installed. Ohio EPA will not allow any discharge of untreated water, therefore, it will be necessary to provide some type of treatment to the effluent.

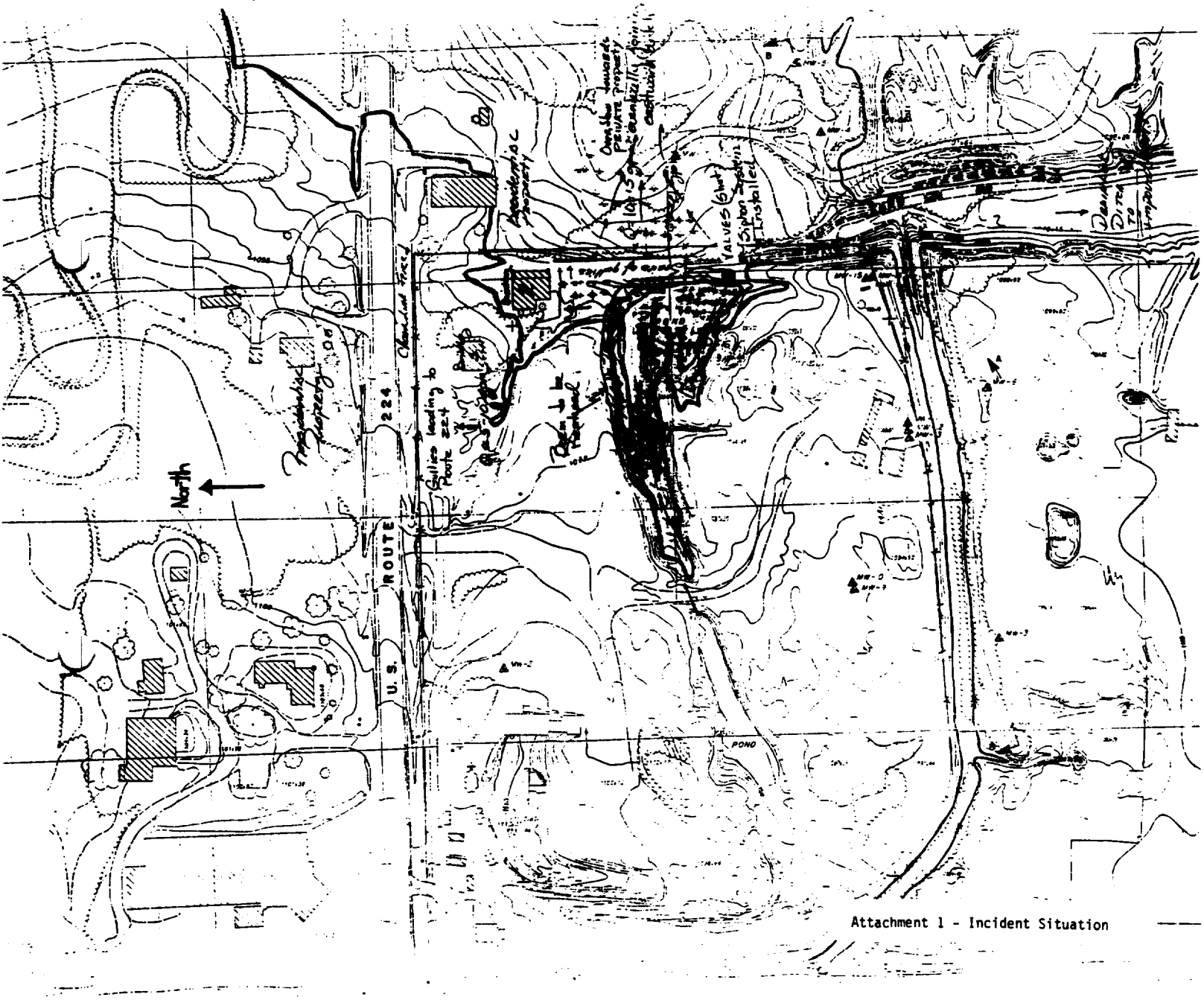
A removal action should be implemented before spring of 1987. As soon as the ice begins to melt and precipitation increases the situation will be out of our control to contain the water from migrating off site. The proposed action will not exceed the statutory limitations, such as the 1 year and [redacted] limit.

Additional Information

On December 11, 1986, the REM IV contractor (SRW) videotaped the incident at Summit National Site. I am forwarding the videotape to you to provide a more visual understanding of the problem. This is the only copy I have so I ask you to return the tape when you forward your decision.

Enclosures

cc: Daniel Bicknell, USEPA-CES
Jonathan McPhee, USEPA-ORC
Michael Strimbu, USEPA-ERRB
Rod Beals, OEPA
Roger Hannahs, OEPA



Attachment 1 - Incident Situation